Impact of obstructive sleep apnea diagnosis on healthcare resource utilization in patients with obstructive lung disease

First published: 25/07/2017

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Study Finalised

Administrative details

EU PAS number

EUPAS19984

Study ID

31027

DARWIN EU® study

No

Study countries

☐ United Kingdom

Study description

A historical observational database study UK using primary care data to evaluate the frequency of continuous positive airway pressure (CPAP) therapy prescribing in patients with sleep-related breathing disorder (SBD, including obstructive sleep apnoea). The study will assess SBD patient characteristics (clinical and demographic) in those in whom CPAP treatment is recorded/coded (vs not recorded). Finally the study will evaluate the impact of (i) CPAP and (ii) a SBD diagnosis (as a proxy for CPAP treatment) and (iii) an OSA diagnosis on clinical outcomes and healthcare resource utilization in a representative SBD population of patients in the United Kingdom with comorbid obstructive lung disease.

Study status

Finalised

Research institutions and networks

Networks

Respiratory Effectiveness Group (REG)

- [ ] Belgium
- [ ] Denmark
- [ ] France
- [ ] Germany
- [ ] Greece
- [ ] Hungary
- [ ] Italy
- [ ] Netherlands
- [ ] Spain

☐ Sweden

☐ United Kingdom

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Network | ENCePP partner

Contact details

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Primary lead investigator

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Primary lead investigator

Study timelines

Date when funding contract was signed

Planned: 16/12/2016

Actual: 16/12/2016

Study start date

Planned: 01/12/2017

Actual: 01/06/2018

Data analysis start date
Planned: 01/02/2018

Date of final study report
Planned: 30/09/2018

Actual: 30/09/2018

Sources of funding

- Other

More details on funding

Respiratory Effectiveness Group

Study protocol

OSA and Comorbid OLD_Pilot Study Protocol_REG.pdf (2.01 MB)

Regulatory

Was the study required by a regulatory body?

No

Is the study required by a Risk Management Plan (RMP)?

Not applicable

Methodological aspects

Study type

Study type list

Study topic:

Disease /health condition

Other

Study topic, other:

Healthcare resource utilization

Study type:

Non-interventional study

Scope of the study:

Disease epidemiology

Healthcare resource utilisation

Data collection methods:

Secondary use of data

Main study objective:

To evaluate the impact of (i) CPAP and (ii) a SBD diagnosis and (iii) an OSA diagnosis on clinical outcomes and healthcare resource utilization in a representative SBD population of patients in the United Kingdom with comorbid obstructive lung disease.

Study Design

Non-interventional study design

Cohort

Cross-sectional

Study drug and medical condition

Medical condition to be studied

Sleep apnoea syndrome

Population studied

Short description of the study population

Patients with sleep-related breathing disorder (SBD, including obstructive sleep apnoea).

Patients with following criteria were included:
1. ≥18 years of age
2. A physician diagnosis of SDB, defined as ≥1 SBD diagnostic codes

Additional criteria for Aim 3
- Three years of continuous data: ≥1 year prior to the first recorded SDB code (“index date”) and ≥2 years immediately after index date.
- An active Obstructive Lung Disease (OLD):
o Asthma subpopulation: a Quality Outcomes Framework (QoF) Read code for asthma ever prior to index date, ≥2 asthma prescriptions in each of the baseline years; no COPD Read code in the 4-year study period
o COPD subpopulation: a QoF Read code for COPD prior to index date, ≥2 COPD prescriptions in each of the baseline years; no asthma Read code in the 4-year study period

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Age groups

- Adults (18 to < 46 years)
- Adults (46 to < 65 years)
- Adults (65 to < 75 years)

- Adults (75 to < 85 years)
- Adults (85 years and over)

Special population of interest

Other

Special population of interest, other

Sleep-related Breathing Disorders patients

Estimated number of subjects

8500

Study design details

Outcomes

Acute respiratory event ratei) Hospital admissionsii)A&E attendanceiii)Acute course of oral steriodsiv) Antibiotic prescriptions, Overall healthcare cost-Total: Encounter + Drug related.

Data analysis plan

Outcome comparison between pre- and post index date periods, for:i) All Active Patientsii) All Active OLD sub-populations (asthma, COPD, asthma & COPD)

Data management

ENCePP Seal

The use of the ENCePP Seal has been discontinued since February 2025. The ENCePP Seal fields are retained in the display mode for transparency but are no longer maintained.

Data sources

Data source(s)

Optimum Patient Care Research Database

Data sources (types)

Electronic healthcare records (EHR)

Use of a Common Data Model (CDM)

CDM mapping

No

Data quality specifications

Check conformance

Unknown

Check completeness

Unknown

Check stability

Unknown

Check logical consistency

Unknown

Data characterisation

Data characterisation conducted

Unknown